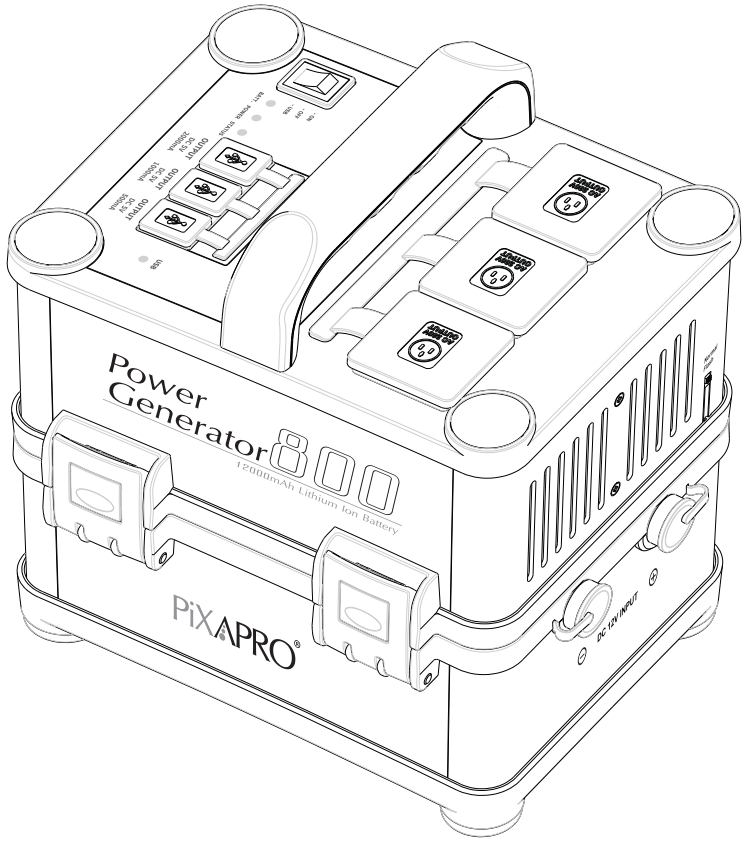
PiXAPRO®

Power Generator 800

12000mAh Lithium Ion Battery



Power Generator 450 & 800

Instrution manual

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FOREWORD

Thank you for purchasing PIXAPRO Power Generator.

PIXAPRO Power Generator is designed in accordance with the industrial standard. Featured by excellent performance, powerful function, reliable stability and portable design, it is the ideal solution for outdoor AC power supply and indoor emergency supply.

Power Generator features in special circuit designed for studio flashes, meeting the demanding requirements of any advanced flashes. Served with Power Generator, your studio flash is able to be operated in a studio with AC power supply, and also plays its portability when used in location shooting. Power Generator is of superior quality. To enjoy its durable and excellent performance better and longer, ensure to read this user manual to get proper operation and protection before use or during operation.

I. Safety Instruction

Warning!

⚠ Children under the age of 18 are prohibited to use this product!

⚠ Be careful of electric shock caused by the high-voltage AC output from the Inverter!

⚠ DO NOT use the Inverter in fog, rain, or snow without any protection!

Please read the following safety precautions before installing or operating the Inverter so as to avoid any damage of the Inverter or personal injury.

1. Safety Precautions

- The rated power of Power Generator 450 is 450W. DO NOT connect 450 to any equipment with the rated power of over 450W. The rated power of Power Generator 800 is 750W (At 800W,800 can work for only 3 minutes continuously.) DO NOT connect 800 to any equipment with the rated power of over 750W either.
- DO NOT operate the Inverter in fog, rain, snow, or dusty conditions. It should be used in a dry and dustless environment.
- Ensure that the Inverter is operated on sound and safe circuits that used modestly. DO NOT operate it on a damaged or unqualified circuit. Or leakage may cause product damage or injuries.
- DO NOT place flammable materials on the Inverter. Never store it or use it in environments where flammable gases exist. This avoids risk of fire or explosion in situations where some components of the Inverter cause sparks.
- DO NOT cover or block the vent. DO NOT place the Inverter in a narrow and small space. Ensure that the Inverter is no less than 30 cm away from nearby objects, or overheating may occur and result in product malfunction.
- The Inverter adopts LiFePO4 battery. The optimal operating temperature is -10° to 45°. Other temperatures may degrade performance or cause operation failures.
- Please close the socket cover when AC socket is not in use.
- Repairs of the Inverter should be performed by the authorized, competent institution or service engineers.

2. Safety Instruction of Battery Use

- The adopted LiFePO4 battery is of good quality, large capacity, high voltage and rapid discharge. DO NOT connect the anode and cathode with a metal object. Or the incurred huge current or high temperature may result in injuries and battery damage, or even explosion.
- Should battery acid come into contact with skin or clothes, rinse it with soap and water immediately. Should battery acid come into contact with eyes, rinse the eyes with cold water for no less than 20 minutes and then get medical attention immediately.
- DO NOT place any metal objects on the battery unit, or short circuit may occur which can cause serious damage to the product.
- DO NOT place metal objects such as a rings, a bracelets, a necklaces, or a watch near and around the Inverter. Any high temperatures caused by a short circuit may melt metal objects and result in burns.

II. Product Introduction

1. Features:

1.1 With the leading technology, it is designed in accordance with the industrial standard to meet professional demands and to eliminate damage to your devices.

1.2 Integrated with dual working modes: flash mode & non-flash mode, it can be applied widely.

1.3 It adopts 12,000 mAh LiFePO4 battery. Battery unit is user replaceable and detachable from control unit.

1.4 It is added with 3 USB sockets for powering electronics with the USB interfaces, e.g. iPhone and iPad.

1.5 The external interfaces of anode and cathode can be connected with an external storage battery to supply the energy longer.

1.6 The tricolor LED lamp indicates the remaining battery level.

1.7 Another tricolor LED lamp indicates the output power level.

1.8 Output with pure sine wave output. Output voltage is 230V/50Hz or 110V/60Hz.

1.9 The continuous power is up to 450W for 450 and 750W for 800 (At 800W, 800 can work for only 3 minutes continuously.) The conversion efficiency is up to 91%.

1.10 It is equipped with the built-in self-adjustable cooling fan.

1.11 It is equipped with the high-end microelectronics processing system.

2. Automatic Protection

2.1 Low-voltage input protection

2.2 Overload protection

2.3 Short-circuit protection

2.4 Low-electricity prompt

2.5 High-voltage input protection

2.6 Overheating protection

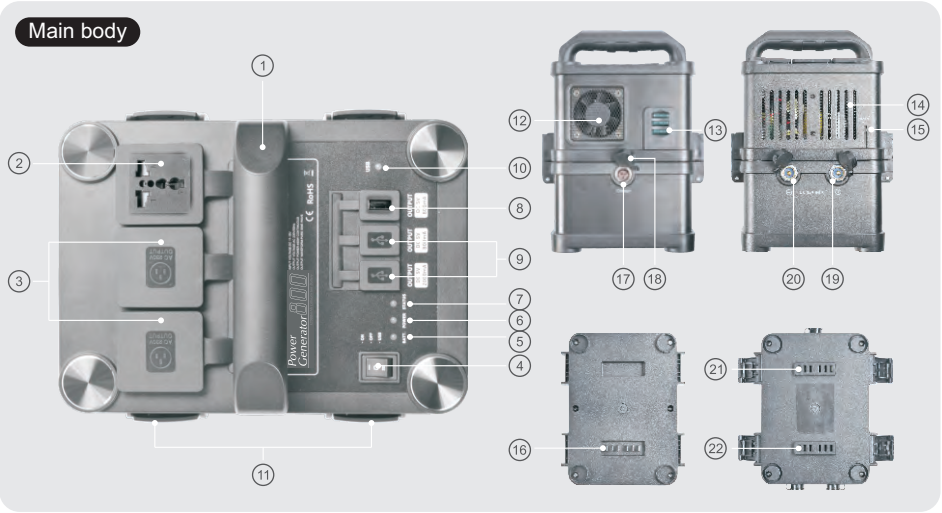
2.7 Positive and negative reverse connection protection of power supply

3. Applicable Scope

- Photographic equipment: Studio flashes, tricolor lamps, quartz lights, and other continuous lightings.
- Household electrical entertainment products: TV sets, camcorder, cameras, video lights, radios, and mobile phones, etc.
- Household appliances: Dust collectors, fans, lamps, shavers, fridges, soymilk makers and stirrers, etc.
- Office supplies: Computers, network servers, printers, fax machines and scanners, etc.
- Electric tools: Electric saws, electric drills, grinders, sand mills and dampers, etc.
- Any other equipment with the rated power of no more than 450W for 450 or 750W for 800 (At 800W,800 can work for only 3 minutes continuously.)

III. Production Description

1. Name of Parts

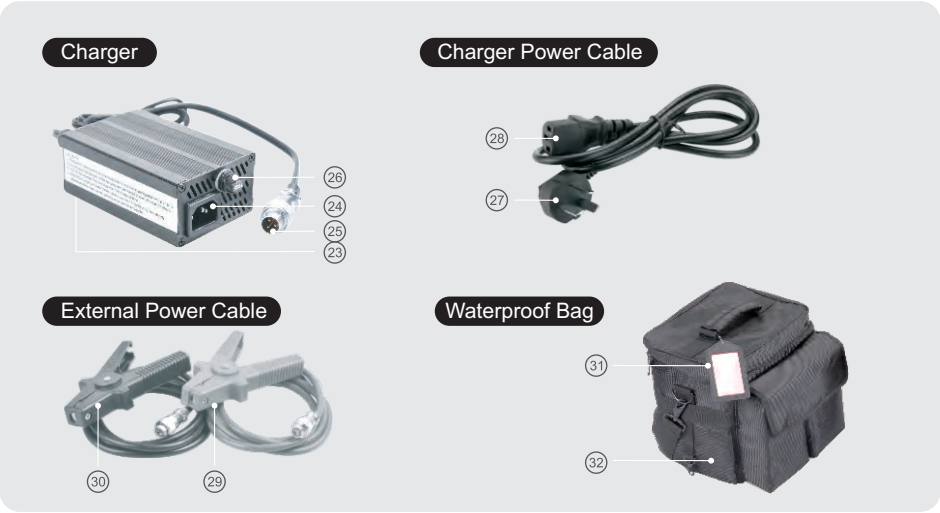


Control Unit

01. Handle
02. AC Output Socket (110V/60Hz or 230V/50Hz)
03. Socket Cover
04. Mains Switch
    ON (Power on)
    OFF (Power off)
    USB (USB charge)
05. Battery Indicator (displaying battery level)
06. Power Indicator (displaying power output level)
07. Status Indicator (displaying working status)
08. USB Socket (USB1, USB2, USB3)
09. USB Socket Cover
10. USB ON Indicator
11. Locking Clasp (Two on the left and two on the right)
12. Air Inlet
13. Fuse
14. Air Outlet
15. Mode Selection
    Flash (Flash mode)
    Normal (Non-flash mode)
16. Power Input

Battery Unit

17. Charging Socket
18. Charging Socket Cover
19. Anode Input Socket for External Battery
20. Cathode Input Socket for External Battery
21. Built-in Battery Output
22. External Power Output



Charger

23. Charging Indicator
24. AC Input Socket
25. Charging Connection Cable
26. Fuse

Charger Power Cable

27. AC Input Plug
28. AC Output Plug

External Power Cable (sold separately)

29. Anode Output Cable
30. Cathode Output Cable

Waterproof Bag

31. Warning Label
32. Flap

2. Function Description

2.1 LED Indicators

(1) Battery Indicator **(05)** (displaying battery level)

Battery LED	Battery Voltage
RED, blinking	<10.7or >15.4V
RED	10.7~11.2V
ORANGE	11.2~12.3V
GREEN	12.3~14.6V
ORANGE, blinking	14.6~15.4V

- In loaded operation, the LED light changes as the battery voltage goes down. The higher the load power is, the more abruptly LED light changes.
- In loaded operation, the Inverter will shut down automatically if the Power Indicator **(06)** (displaying power output level) blinks frequently and the buzzer alarms for over 5s. In this case, the remaining battery power is too low to afford the current load. Please charge it for use.

IV. Operation Instruction

(2) Power Indicator **(06)** (displaying power output level)

Power LED	Output Power (450)	Output Power (800)
OFF	0~35W	0~35W
GREEN	35W~200W	35W~230W
ORANGE	200W~350W	230W~520W
RED	350W~460W	520W~670W
RED, blinking	>460W	>670W

(3) Status Indicator **(07)** (displaying working status)

Status LED	Working Status
RED	No
GREEN	Yes

2.2 Mode Selection (15)

Power Generator is integrated with two operating modes: “Normal” (non-flash mode) and “Flash” (flash mode). Users can choose one of the operating modes according to the loaded equipment.

The “Flash” (flash mode) is specially designed for the use of flashes. It is also applicable to electrical appliances with rated power. However, in this mode, power saving function is not available so that the built-in battery can stand by for only 13 hours.

In “Normal” (non-flash mode), the use of flashes is not available. In this mode, power saving function is available so that the built-in battery can stand by for 55 hours. Therefore, non-flash electronics are recommended to use this mode.

For details, refer to Section VI “Introduction to Function Mode”.

2.3 Mains Switch (04)

“OFF”: The Inverter is powered off.

“ON”: The Inverter is powered on. When it switches to “ON”, the Inverter is ready for use.

“USB”: The Inverter enters into USB charging mode. When USB ON Indicator lights up, portable electronics with USB interfaces e.g. iPhone and iPad, can draw power from the USB sockets. In USB mode, no AC power output is available.

USB1: Output 5V/2000 mA

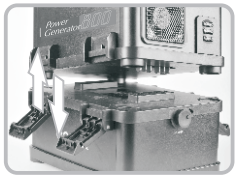
USB2: Output 5V/1000mA

USB3: Output 5V/500mA

2.4 AC Output Socket (02)

- Three AC output sockets are in parallel connection, and each of them can output the maximum power.
- The socket is universal and applicable in all countries and regions. No adapter is required.
- Standard voltage of AC output is 230V/50Hz or 120V/60Hz. If you have other requirements in terms of voltage, contact us prior to purchase.

1. Installation and Detachment of Battery Unit



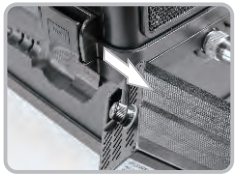
- Installation
  1. Place the control unit on the battery unit in position.
  2. Snap the four locking clasps so that the control unit is securely seated on the battery unit.
- Detachment
  1. Push the button on each locking clasp to open the four locking clasps.
  2. Remove the control unit from the battery unit.

1.1 Charging

The AC charger is applicable to AC power (100-240V).

1. Turn the Inverter off before charging.

2. Insert the “Charging Connection Cable (25)” of the charger into the “Charging Socket (17)” on the Inverter.



3. Insert the “AC Output Plug (28)”of the Charger Power Cable into the “AC Input Socket (24)”of the charger, and connect the “AC Input Plug (27)” to any AC power for charging.

This battery unit can be charged using AC power supply (100-240V). However, structures and dimensions of power sockets vary in different countries or regions. Therefore, an adapter is required.

1.2 LED Lamps of the Charger

(1) The red lamp is blinking: No charging.
(2) The red lamp is lit continuously: In charging.
(3) The green lamp is lit: Charging is complete.

It takes about 3 hours to fully charge the Inverter when the battery power is empty. Ensure to pull out the “Charging Connection Cable” when the charging is complete. To maintain the expected service life of the battery, ensure to fully charge the Inverter in the following circumstances:

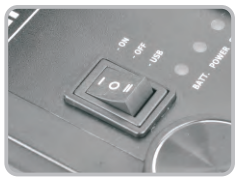
- Each time after using the Power Generator.
- Before using the Inverter that has ceased using for more than 100 days.

V. Connecting an External Storage Battery

2. Connecting Power Generator 450 or 800

1. Turn “Mains Switch (04)”to “OFF”.

2. Connect your device to the “AC Output Socket (02)”.



3. Turn “Mains Switch (04)”to “ON”.

4. Turn “Mode Selection (15)”to “Flash (flash mode)” or “Normal (non-flash mode)”.

5. Turn your device on. Now your device will draw power from the Inverter.

Power the modeling lamp off while using the Inverter for flashes. Or the battery unit of the Inverter may run out of power within a short time.

Turn “Mains Switch (04)”to “ON” and the Inverter will run a short automatic detection after a beep. During the detection, the LED indicators on the control panel change in colors. The detection lasts for seconds and later on the Inverter gives out another beep and the “Status Indicator (07)”turns green. The Inverter will now start working.

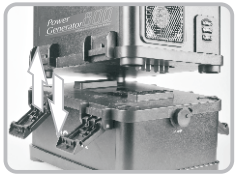
In case of outdoor photography, the Inverter can be used while placing inside a waterproof bag to avoid any dust, sand, or water. Ensure to open the “Flap (32)” on both sides of the waterproof bag and use the hook buckles to hang them and keep opened. DO NOT cover the “Air Inlet (12)”.

1. Connecting an External Battery

Instead of using the built-in battery, the Inverter can use an external storage battery (11-15V) to power your flashes by the use of an external power cable (sold separately). As the external battery has larger capacity, the Inverter can work longer than that in using the built-in battery. You can purchase external batteries with different capacities based on your requirements so as to prolong the continuous service time of the Inverter.

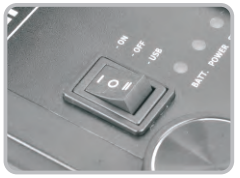
1. Take the Power Generator out of the waterproof bag.

2. Check and ensure that the Inverter is powered off.



3. Interlock the “Power Input (16)”of the control unit and the “External Power Output (22)” on the battery unit.

4. Connect the “External Power Cable” to the battery unit. Ensure a CORRECT positive and negative connection to the external battery.



5. Ensure that preceding steps are properly performed, and then power the Inverter on.

2. Standard of External Power Cables

2.1 external power cable
2.2 Standard of external power cables provided by other manufacturers
(1) Allowing 100 A current
(2) No longer than 2m

External power cable

Warning!

- ⚠ DO NOT REVERSE the anode and cathode connection to the external battery. Or the fuses of the Inverter may burn and even cause irreparable damages to the Inverter. Damages thus incurred are not covered by the warranty.
- ⚠ DO NOT use the Inverter in or around explosive and flammable gases.
- ⚠ Ensure that the “Power Input (16)”of the control unit and the “External Power Output (22)” on the battery unit are securely interlocked.

- When the Inverter uses an external battery, the built-in battery of the Inverter will not be charged.
- The required voltage of an external battery is 11-15V.
- The symbol [+] indicates anode, and [-] indicates cathode.

VI. Introduction to Function Modes (Taking 800 as an example)

1. Normal Mode

In this mode, the use of flashes is not available but non-flash electrical appliances with the rated power can use the normal mode. Taking 800 as an example, the maximum power is 800W (At 800W, 800 can work for only 3 minutes continuously.) The power saving function is available in this mode.

When the operated power exceeds 800W, “Power Indicator (06)” turns red (blinking) and the buzzer alarms. Meanwhile, the “Status Indicator (07)” turns red and the Inverter will perform an auto protective shutdown. The following circumstances are for your reference:

- For the equipment with the power of about 800W, the Inverter can work for 3 minutes continuously. The Inverter stops working after a buzzer alarm.
- For the equipment with the power of 1000-1400W, the Inverter can only work for 2-3 seconds. The Inverter stops working after a buzzer alarm.
- For the equipment with the power of 1400-1800W, the system of the Inverter starts but shuts down within 3 seconds.
- For the equipment with the power of more than 1800W, the system of the Inverter CANNOT start.
- As for the equipment with other power, it should be regulated based on the preceding values.

The Inverter adopts a 12Ah/12.8V LiFePO4 battery. The following lists the service time of the fully charged battery in two cases:

- For 100W halogen lamp, the Inverter can work for about 80 minutes continuously.
- For 500W quartz light, the Inverter can work for about 15 minutes continuously.

Note:

On non-flash device that has a rated power smaller than 45W, the Power Inverter should be switched to Flash Mode for a normal operation. Otherwise, the Power Inverter will automatically enable power saving function and cut off AC output.

2. Flash Mode

The “Flash” (flash mode) is specially designed for the use of flashes. It is also applicable to electrical appliances with rated power. However, in this mode, power saving function is not available. For the use of non-flash electrical appliances with rated power, see the preceding section “Normal Mode”.

While using a flash:

2.1 Maximum service energy for the flash using Power Generator

(Using an 800) Maximum service energy for the flash

(1) Will be 1500W/S (cumulative, similarly hereinafter) if the flash recycles in 1 second.

(2) Will be 3000W/S if the flash recycles in 2-3 seconds.

(3) Will be 5000W/S if the flash recycles in 5 seconds.

(4) As for the flash recycling differently, refer to the preceding values.

(Using an 450) Maximum service energy for the flash

(1) Will be 750W/S (cumulative, similarly hereinafter) if the flash recycles in 1 second.

(2) Will be 1500W/S if the flash recycles in 2-3 seconds.

(3) Will be 2500W/S if the flash recycles in 5 seconds.

(4) As for the flash recycling differently, refer to the preceding values.

2.2 Recycling time of the flash using Power Generator

(Using an 800) Recycling time of the flash

(1) Does not change if the flash recycles in 1 second and does not exceed 800W/S (cumulative, similarly hereinafter).

Will increase if the flash recycles in 1 second but exceeds 800W/S. The recycling becomes longer but does not exceed 5s.

(2) Does not change if the flash recycles in 2-3 seconds and does not exceed 2400W/S.

Will increase if the flash recycles in 2-3 seconds but exceeds 2400W/S. The recycling becomes longer but does not exceed 5s.

(3) Does not change if the flash recycles in 3 seconds and does not exceed 3000W/S.

Will increase if the flash recycles in 3 seconds but exceeds 3000W/S. The recycling becomes longer but does not exceed 5s.

(Using an 450) Recycling time of the flash

(1) Does not change if the flash recycles in 1 second and does not exceed 500W/S (cumulative, similarly hereinafter).

Will increase if the flash recycles in 1 second but exceeds 500W/S. The recycling becomes longer but does not exceed 5s.

(2) Does not change if the flash recycles in 2-3 seconds and does not exceed 1000W/S.

Will increase if the flash recycles in 2-3 seconds but exceeds 1000W/S. The recycling becomes longer but does not exceed 5s.

(3) Does not change if the flash recycles in 3 seconds and does not exceed 1500W/S.

Will increase if the flash recycles in 3 seconds but exceeds 1500W/S. The recycling becomes longer but does not exceed 5s.

2.3 Full power flash times of the fully charged battery of 800(for our Flash)

(1) Approximately 400 for three Mini Pioneer flashes (250DI).

(2) Approximately 500 for one Studio flash (TC600). The value is cumulative (similarly hereinafter).

(3) Approximately 150 for two Studio flashes (TC1000).

(4) For the values of flashes with other power levels, refer to the preceding values.

3. LED Lamp Alarm

When a flash is first energized by the Inverter, the transient current of the flash is no less than 3 times its full-load current. For example, a 100W/S flash may have a transient current equal to the full-load current of a 300W/S lamp. Therefore, when the 800 is used for specific flashes, “Power Indicator (06)” will blink with a short beep. This is normal when the transient current of the flashes exceed 800W (for 800).

If “Power Indicator (06)” blinks and beeps for over 5 seconds, the equipment will automatically shut down.

Should this happen, turn “Mains Switch (04)” to power the Inverter on for use.

VII. Replacing Fuses

The Power Generator 450 or 800 is equipped with three 30A fuses.

Should the Inverter fail to operate properly, check if the fuses are melted. If so, replace with new fuses.

Ensure that the Inverter is turned off before replacing any fuses. Unplug the melted fuses and insert new ones.

VIII. Product Compatibility

The Inverter is so widely applied in flashes and non-flash electrical appliances as described in Section VI that we have not found any incompatible products. In case that you find any incompatible product, please notify us in time. We will be grateful for your kindness.

IX. Maintenance and Warranty

All the finished products of PIXAPRO Power Generator shall be transported from the factory only after being checked by our professional QC one by one. For a much more convenient experience, a test run is required at times. To avoid performance degrade caused by accumulated dust, wipe the surface of the Inverter with wet clean cloth.

A one-year warranty is provided for PIXAPRO Power Generator. However, its accessories such as battery unit, AC charger, charger power cable, are not covered by the warranty. Any fault caused by improper operation is not covered by the warranty.

Should any product malfunction occur, you can visit our website for further information. If the problem remains unsolved, please turn to any authorized service stores or contact us. To solve your problem in a timely and efficient manner, we will be grateful if you would provide the following information when contacting us:

1. Your name or name of your company, and your contact number or email.

2. Problem description.

X. Product Kit

1* Power Generator 450 or 800

1* Charger

1* Charger Power Cable

1* Shoulder Bag

1* 2m External Power Cable (sold separately)

XI. Technical Data

Model	Power Generator 450	Power Generator 800
Continuous Output	450W	750W (At 800W, it can work for only 3 minutes continuously.)
Peak Power	900W	1400W
Input Voltage Range	11-15.5V	
Output Voltage/Frequency	AC 110V/60Hz or AC 230V/50Hz	
Output Waveform	Pure Sine Wave	
High Harmonic Distortion	< 3%	
No-Load Current Consumption	Normal mode:0.25A Flash mode:0.9A	
Conversion Efficiency	91%	
Low-Voltage Alarm	Yes	
Low-Voltage Shutdown	Yes	
Storage Temperature Range	-30ºC to 70ºC	
Operating Temperature Range	-10ºC to 45ºC	
Battery Type	LiFePO4	
Nominal Battery Capacity	12Ah (12.8V)	
Charging Time	Approx. 3 hours (used the included 5A charger)	
Fuse	3*30A	
Dimension	267*206*292mm	
Weight	Approx. 6.78kg	